

## UPP-103\* UNIVERSAL PROM PROGRAMMER

Intellec® Development System Peripheral for PROM programming and verification

Personality cards available for programming all Intel® PROM families

Zero insertion force sockets for both 16-pin and 24-pin PROMs

Universal PROM Mapper software provides powerful data manipulation and programming commands

Flexible power source for system logic and programming pulse generation

Holds 2 personality cards to facilitate programming operations using several PROM types

The Universal PROM Programmer (UPP) is an Intellec® System peripheral capable of programming and verifying the following Intel Programmable ROMs (PROMs): 1702A, 2704, 2708, 2716, 3601, 3602, 3602A, 3621, 3622, 3622A, 3604, 3604A, 3604AL, 3604L-6, 3605, 3608, 3624, 3624A, 3625, 3628, 8702A, 8704, and 8708. In addition, the UPP programs the PROM memory portions of the 8748 Microcomputer and the 8755 PROM and I/O chip. Programming and verification operations are initiated from the Intellec Development System console and are controlled by the Universal PROM Mapper (UPM) program.



## FUNCTIONAL DESCRIPTION

The basic UPP consists of a controller module, two personality card sockets, front panel, power supplies, chassis and an Intellec Development System interconnection cable. An Intel 4040-based intelligent controller monitors the commands from the Intellec System and controls the data transfer interface between the selected PROM personality card and the Intellec memory. A unique personality card contains the appropriate pulse generation functions for each Intel PROM family. Programming and verifying any Intel PROM may be accomplished by selecting and plugging in the appropriate personality card. The front panel contains a power-on switch and indicator, reset switch, and two zero-force insertion sockets (one 16-pin and one 24-pin or two 24-pin). A central power supply provides power for system logic and for PROM programming pulse generation.

The Universal PROM Programmer may be used as a table top unit or mounted in a standard 19" RETMA cabinet.

The Universal PROM Mapper (UPM) is the software program which controls transfers of data between paper tape or diskette files and a PROM plugged into the

Universal PROM Programmer. It uses Intellec System memory for intermediate storage. The UPM transfers data in 8-bit HEX, BNPF, or binary object format between paper tape or diskette files and the Intellec System memory. While the data is in Intellec System memory, it can be displayed and changed. In addition, word length, bit position, and data sense can be adjusted as required for the PROM to be programmed. PROMs can also be duplicated or altered by copying the PROM contents into the Intellec System memory. Easy-to-use PROGRAM and COMPARE commands give the user complete control over programming and verification operations. The UPM eliminates the need for a variety of personalized PROM programming routines because it contains the programming algorithms for all Intel PROM families.

There are two versions of the UPM: one that runs under Intellec System Monitor (paper tape system), and one that runs under ISIS-II, the Intellec Diskette Operating System (diskette-based system). The paper tape version is included with the Universal PROM Programmer. The diskette-based version of the UPM is available on all ISIS-II system diskettes.

## HARDWARE INTERFACE

Data: Two 8-bit unidirectional buses

Commands: 3 Write Commands  
2 Read Commands  
Initiate Command

## PHYSICAL CHARACTERISTICS

Dimensions: 6" x 7" x 17"  
14.7 cm x 17.2 cm x 41.7 cm

Weight: 18 lb (8.2 kg)

## ELECTRICAL CHARACTERISTICS

AC Power Requirements: 50-60 Hz; 115/230 VAC; 80 Watts

## ENVIRONMENTAL CHARACTERISTICS

Operating Temperature: 0°C to 55°C

## EQUIPMENT SUPPLIED

Cabinet  
Power Supplies  
4040 Intelligent Controller Module  
Specified Zero Insertion Force Socket Pair  
Intellec® Development System Interface Cable  
Hardware Reference Manual  
Reference Schematics  
Universal PROM Mapper Operator's Manual  
Universal PROM Mapper program (paper tape version —  
disk-based version available on ISIS-II diskettes)

## OPTIONS

### Personality Cards:

UPP-361: 3601 Personality Card  
UPP-816: 2716 Personality Card  
UPP-848: 8748 Personality Card with 40-pin adaptor socket  
UPP-855: 8755 Personality Card with 40-pin adaptor socket  
UPP-865: 3602, 3622, 3602A, 3622A, 3621, 3604, 3624, 3604A, 3624A, 3604AL, 36046-6, 3605, 3625, 3608, 3628  
UPP-872: 8702A/1702A Personality Card  
UPP-878: 8708/8704/2708/2704 Personality Card

### PROM Programming Sockets:

UPP-501: 16-pin/24-pin socket pair  
UPP-502: 24-pin/24-pin socket pair  
UPP-562: Socket Adaptor for 3621, 3602, 3622, 3602A, 3622A  
UPP-555: Socket Adaptor for 3604AL, 36046-6, 3608, 3628  
UPP-565: Socket Adaptor for 3605, 3625

## ORDERING INFORMATION

Universal PROM Programmer:  
UPP-103 with 16-pin/24-pin socket pair and 24-pin/  
24-pin socket pair.